

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A surface plasmon resonance measuring chip for use in a surface plasmon resonance measurement apparatus constituted of a light source for emitting a light beam; an optical system for making said light beam enter a dielectric block at various angles of incidence so that a condition for total internal reflection is satisfied at an interface between said dielectric block and said metal film; and photodetection means for detecting the intensity of said light beam satisfying total internal reflection at said interface to detect surface plasmon resonance; comprising:

a dielectric block;

a metal film, formed on a surface of said dielectric block, for placing a sample thereon;

wherein said dielectric block is formed as a single block that includes an entrance surface which said light beam enters, an exit surface from which said light beam emerges, and a surface on which said metal film is formed;

said metal film is united with said dielectric block; and

said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of an s-polarized component at said interface is 50% or less of the intensity of said light beam at said interface.

2. (original): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of a s-polarized component at said interface is 30% or less of the intensity of said light beam at said interface.

3. (original): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block is formed from a synthetic resin in which, when said light beam is p-polarized outside said dielectric block and then strikes said interface, the intensity of a s-polarized component at said interface is 10% or less of the intensity of said light beam at said interface.

4. (original): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said synthetic resin is a synthetic resin that is selected from polymethylmethacrylate, a cycloolefin polymer, or a cycloolefin copolymer.

5. (original): The surface plasmon resonance measuring chip as set forth in claim 2, wherein said synthetic resin is a synthetic resin that is selected from polymethylmethacrylate, a cycloolefin polymer, or a cycloolefin copolymer.

6. (original): The surface plasmon resonance measuring chip as set forth in claim 3, wherein said synthetic resin is a synthetic resin that is selected from polymethylmethacrylate, a cycloolefin polymer, or a cycloolefin copolymer.

7. (original): The surface plasmon resonance measuring chip as set forth in claim 1, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

8. (original): The surface plasmon resonance measuring chip as set forth in claim 2, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

9. (original): The surface plasmon resonance measuring chip as set forth in claim 3, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

10. (original): The surface plasmon resonance measuring chip as set forth in claim 3, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

11. (original): The surface plasmon resonance measuring chip as set forth in claim 4, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

12. (original): The surface plasmon resonance measuring chip as set forth in claim 6, wherein a sensing medium that exhibits a coupling reaction with a specific substance in said sample is fixed on said metal film.

13. (canceled).

14. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said sample is fixed on said metal film and is held in a sample holding frame which is integrally formed on said dielectric block.

15. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein a top surface of said dielectric block is contiguous to said metal film such that there is substantially no air gap between said top surface of said dielectric block and said metal film.

16. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block and said metal film are integrally formed.

17. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block is formed in the shape of a rectangular parallelepiped.

18. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said metal film comprises a vapor-deposited film.

19. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said entrance surface is formed on a first portion of a spherical surface of said dielectric block and,

wherein said exit surface is formed on a second portion of said spherical surface of said dielectric block.

20. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block has a cut out portion in a region where said light beam does not penetrate.

21. (new): The surface plasmon resonance measuring chip as set forth in claim 1, wherein said dielectric block is formed in a quadrangular pyramid shape, and

wherein said dielectric block comprises a sample holding hole having a circular cross section which gradually increases in diameter toward a top surface of said dielectric block, and

wherein a bottom surface of said dielectric block is contiguous to said metal film.